# TED01 – (Environmental Part 01) Air Pollution

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Option E: Environmental chemistry (15/22 hours)**  
Human activities involve intensive use of limited resources found in air, water and soil. Many of these activities produce waste products that build up in the environment to produce pollution with increasingly local and global effects. An understanding of this impact is essential within and beyond the study of chemistry. This option has many opportunities for discussing aim 8 issues and the international dimension.

**Core material:** E1–E8 are core material for SL and HL (15 hours).  
**Extension material:** E9–E12 are extension material for HL only (7 hours).

1. E.1.1 Describe the main sources of carbon monoxide (CO), oxides of nitrogen (NOx), oxides of sulfur  
   (SOx), particulates and volatile organic compounds (VOCs) in the atmosphere. (2) Include both natural and anthropogenic sources. Equations should be used as appropriate.
2. E.1.2 Evaluate current methods for the reduction of air pollution. (3) Examples include: CO - catalytic converters, NOx - control of fuel/air ratio SOx—alkaline scrubbing, limestone-based fluidized beds, particulates - electrostatic precipitationi, VOC's - catalytic converters